GE Motors

Vertical Motor Non-Reverse/

Bolted Coupling

Installation Instructions

(For 5KXXXXDTTXXXX Models)

High Thrust
Hollow Shaft
Frames 213-449 NEMA Type P-Base
Weather Protected Type - I
Ball Type NRC (Non Reverse Coupling) & Bolted Coupling

High voltage and rotating parts can cause serious or fatal injuries. Installation, operation and maintenance of electric machinery should be performed by qualified personnel. Familiarization with NEMA Publication MG-2, Safety Standard for Construction and Guide for Selection, Installation and Use of Electric Motors and Generators, the National Electrical Code and sound local practices is recommended.

For equipment covered by this instruction book, it is important to observe precautions to protect personnel from possible injury. Among the many considerations, personnel should be instructed to:

- ***Avoid contact with energized circuits or rotating parts.***
- ***Avoid bypassing or rendering inoperative any safeguards or protection devices.***
- ***Avoid use of automatic-reset thermal protection where unexpected starting of equipment might be hazardous to personnel.***
- ***Avoid contact with capacitors until safe discharge procedures have been followed.***
- ***Be sure the shaft key is fully captive before the motor is energized.***
- ***Avoid extended exposure in close proximity with high noise levels.***
- ***Use proper care and procedures in handling, lifting, installing, operating and maintaining the equipment.***
- ***The motor should be lifted by the lugs provided. Do not lift anything but the motor with the motor lifting means.***

Safe maintenance practices by qualified personnel are imperative. Before starting maintenance procedures, be positive that:

- ***Equipment connected to the shaft will not cause mechanical rotation.***
- ***Main machine windings and all accessory devices associated with the work area are disconnected from electrical power sources.***

If a high potential insulation test is required, procedures and precautions outlined in NEMA Standard MG-1 and MG-2 should be followed.

Failure to properly ground the frame of this machine can cause serious injury to personnel or death. Grounding should be in accordance with the National Electrical Code and consistent with sound local practice.

These instructions do not purport to cover all of the details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation, or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the General Electric Company.

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INSTRUCTION DIAGRAMS FOR MOUNTING 210 TO 280 FRAME NON-REVERSE AND BOLTED COUPLINGS (FOR 5KXXXXDTTXXXX MODELS)

Coupling Kit Packing List

Item	Quantity
Upper Half Coupling	1
Coupling Bolts	3
Coupling Lock Washers	3
Cover Plate	1
Cover Plate Bolts	5
Cover Plate Lock Washers	5
Steel Balls	10
Gib Key	1
Instructions	1

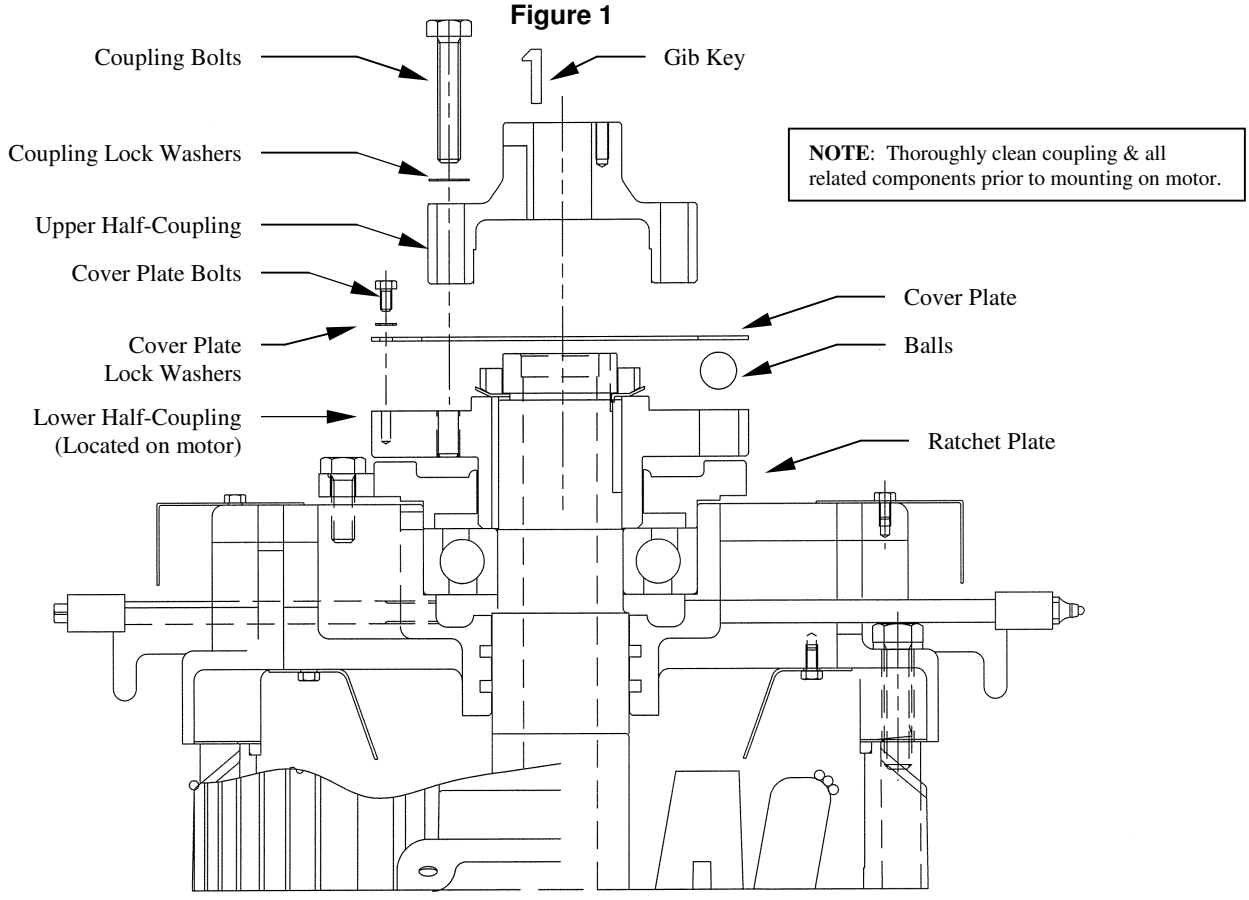
Bolt Torque Chart

Part Name	Frame Size	Item	Torque (Ft-Lbs)	Torque (N-M)
Cover Plate Bolts	210 thru 280	1/4 - 20 UNC x 1/2 Bolt	8	11
Coupling Bolts	210	5/16 - 18 UNC x 1-3/4 Bolt	17	23
Coupling Bolts	250/280	3/8 - 16 UNC x 2-1/4 Bolt	30	41

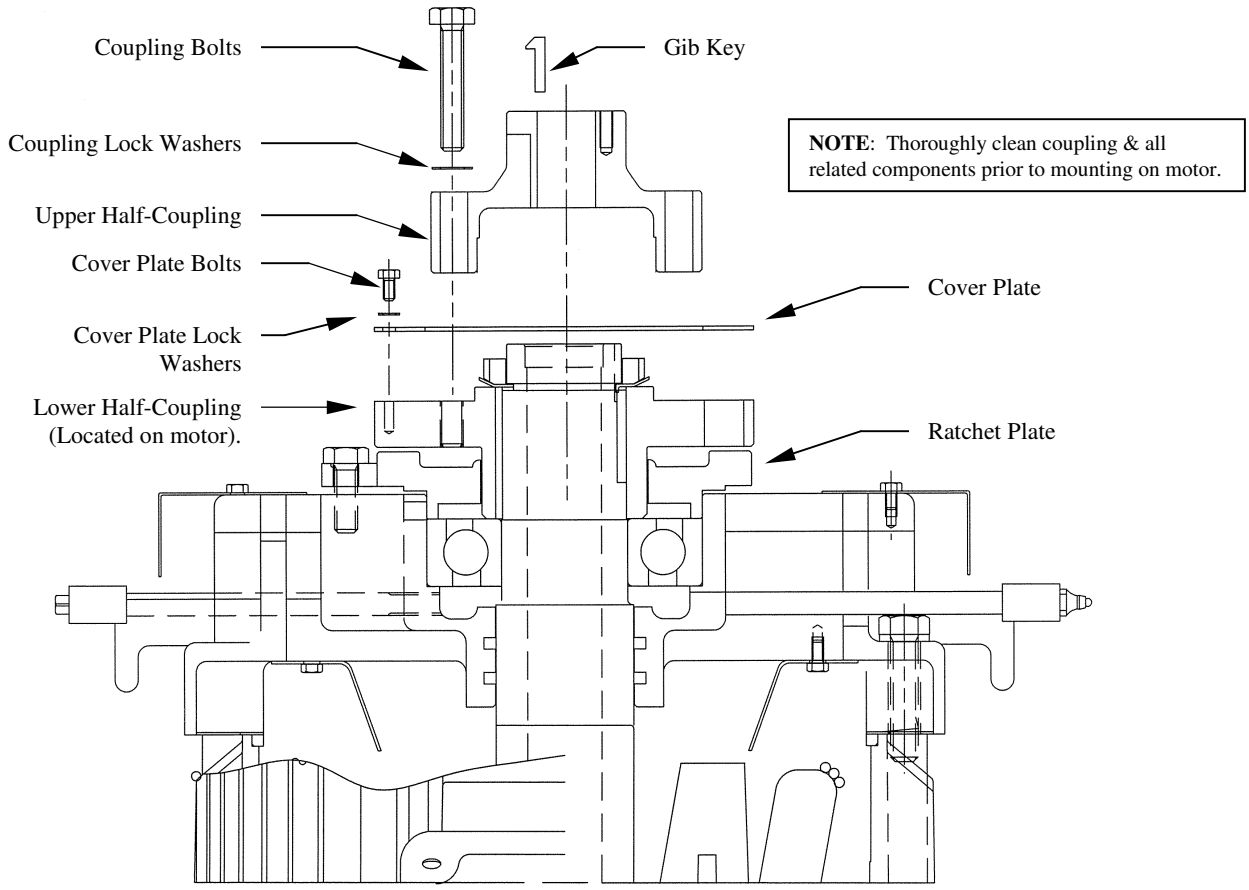
Caution

It shall be the installer's responsibility in all cases to ascertain these torque values are used and maintained. This shall include those instances when the coupling comes mounted in the motor. Failure to comply may cause the coupling bolts to break, with resultant, extensive damage to the equipment.

NON-REVERSE COUPLING (NRC ASSEMBLY)
Figure 1



BOLTED COUPLING ASSEMBLY
Figure 2



Note: Steel balls are not used on bolted coupling assembly.

INSTRUCTION DIAGRAMS FOR MOUNTING 320 TO 440 FRAME NON-REVERSE AND BOLTED COUPLINGS (FOR 5KXXXXDTTXXXX MODELS)

Coupling Kit Packing List

Item	Quantity
Upper Half Coupling	1
Coupling Bolts	6
Coupling Lock Washers	6
Cover Plate	1
Cover Plate Bolts	5
Cover Plate Lock Washers	5
Balls	10
Gib Key	1
Instructions	1

Bolt Torque Chart

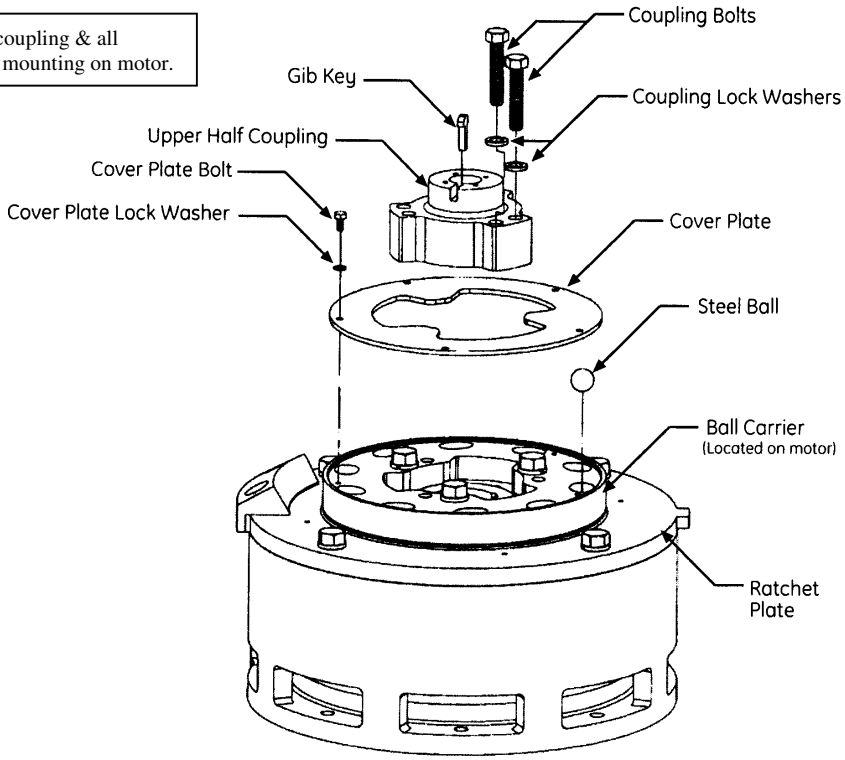
Part Name	Frame Size	Item	Torque (Ft-Lbs)	Torque (N-M)
Cover Plate Bolts	320/440	1/4 - 20 UNC x 5/8 Bolt	8	11
Coupling Bolts	320/360	1/2 - 13 UNC x 2-1/2 Bolt	75	102
Coupling Bolts	400/440	5/8 - 11 UNC x 3-1/2 Bolt	150	203

Caution

It shall be the installer's responsibility in all cases to ascertain these torque values are used and maintained. This shall include those instances when the coupling comes mounted in the motor. Failure to comply may cause the coupling bolts to break, with resultant, extensive damage to the equipment.

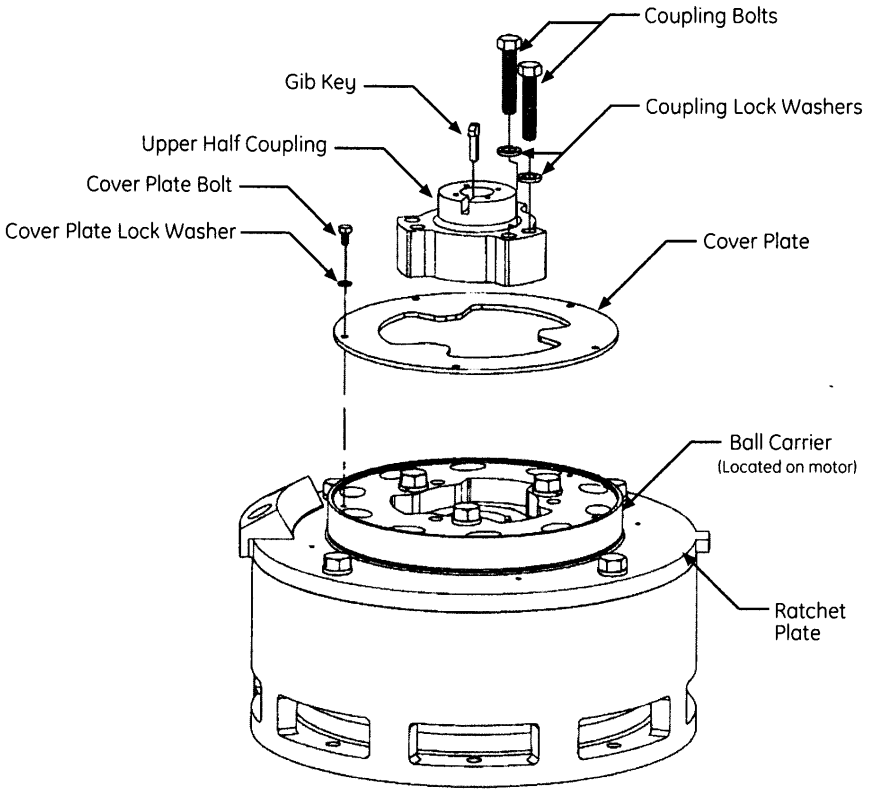
NON-REVERSE COUPLING (NRC) ASSEMBLY
Figure 3

NOTE: Thoroughly clean coupling & all related components prior to mounting on motor.



BOLTED COUPLING ASSEMBLY
Figure 4

NOTE: Thoroughly clean coupling & all related components prior to mounting on motor.



Note: Steel balls are not used on bolted coupling assembly.

Reader Comments

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Clarity	○	○	○	○	
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Drawings / Figures	○	○	○	○	
Tables	○	○	○	○	
Referencing	○	○	○	○	
Readability	○	○	○	○	

Specific Suggestions (Corrections, information that could be expanded on, and such.)

Page No.	*Comments*

Other Comments (What you like, what could be added, how to improve, and such.) _____

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0	03/27/06	Futter	06-0644	New manual for Ball NRC 320-440 frame motors.